

3. *Identity of Hæmatoidin and Bilifulvin.*—Dr. MAX JAFFE, of Berlin, after alluding to the researches of Zencker, Brücke, Valentine, Kühne, &c., on the same subject, states that he has obtained crystals in a chloroform solution of bile, which in form and all known reactions closely agree with hæmatoidin. He then proceeds to describe an examination of a cerebral apoplectic cicatrix, which proved that hæmatoidin and bilifulvin were identical.

This cicatrix, which was of a yellowish-brown colour, and showed under the microscope a large number of crystals of hæmatoidin, was dried in a water-bath and cut into small pieces. A chloroform extract was made, and was then moistened with a few drops of absolute alcohol, by which the action of the chloroform was apparently facilitated. The extract which contained the cerebral fat was of a deep yellow colour. The chloroform extract was then gently evaporated down in a watch-glass, and for twenty-four hours was placed in a darkened place (for fear of oxidation changes, which, in the case of bilifulvin solutions, take place in the sunlight, and quickly produce changes of colour), and then examined microscopically. It was found to consist of transparent, golden-yellow, beautifully formed crystals, corresponding accurately to hæmatoidin in form.

On freeing the crystals by ether from fat, a portion of them became dissolved therein (pure ether as well as pure alcohol partially dissolves bilifulvin), the remaining crystals being soluble with tolerable facility in solution of carbonate of soda. The yellow solution became green during filtration. A small remaining portion was treated with sulphuric acid and examined, and the crystals then showed the well known colour-play of biliary colouring matter. Similar changes were observed in the chloroform solution on the addition of sulphuric acid.

From these observations on the microscopical and chemical character of the crystals, the author concludes that hæmatoidin and bilifulvin are identical, and he points out the bearing which this statement has upon our views regarding the changes of blood-cells in the liver.

Examinations of other apoplectic changes in portions of brain which had been long immersed in spirit did not disclose crystals of bilifulvin.

The fat which remained after distillation of the yellow chloroform extract assumed the shape of margaric acid crystals, and probably mechanically hindered the formation of bilifulvin crystals.—*Brit. and For. Med.-Chir. Review*, Oct. 1862, from *Virchow's Archiv.*, 1861, Bd. xxiii.

MATERIA MEDICA AND PHARMACY.

4. *Action and Uses of Codeia.*—Dr. ARAN, Professor Agrégé at the Faculty of Medicine, and Physician-in-Chief to the Hospital St. Antoine, has lately made some experiments with codeia, and says that as yet he has employed "this alkaloid only to obtain calm and sleep, but from the ten or twelve cases I have witnessed I have been able to discover in this agent sedative and narcotic properties, which in my estimation place it in the first rank amongst the best remedies of this kind existing. To recapitulate in a few words the impression this medicament has made upon me, I will tell you that the codeia seems to me to contain the most marvellous and efficacious properties of opium. Inferior to morphia for calming pains, for this reason only, that it must be given in larger doses to patients; it has, however, over morphia, a marked superiority in that respect, that it never occasions a heavy and agitated sleep; that it does not bring on perspiration or eruptions of the skin, nor trouble the digestion; that it produces no obstinate constipation, no desire to vomit nor any vomiting. For all these considerations codeia appears to me to be destined to become of great service in the nervous diseases of the stomach, and I can tell you that we have obtained with it some calm in cases of gastralgia, which had defied all other means, belladonna included.

"But it is especially as a means of procuring calm and restoring sleep that the codeia seems to me called to occupy an important place in therapeutics.

Those stubborn and harassing coughs of bronchitis, and particularly of consumption, those violent pains of rheumatism, gout, and the organic affections, of cancer, for instance, which disturb the sleep, and frequently deprive the patients of the least moments of repose, are all forgotten in the midst of the calm and agreeable sleep which codeia procures.

"I have witnessed two very conclusive cases of incurable cancerous tumours, for which no means of relief, at all lasting, had been found. One of these tumours, of an enormous size, almost filled the pelvis, and produced on the passage of the sciatic nerve pains returning at about 8 o'clock P. M., and with such an intensity as to force cries from the patient, who could only become calm but towards the morning, when she would fall asleep, overcome with fatigue. Two centigrammes¹ of codeia produced the first day a calm so complete that the patient thought herself cured, and for the first time since a month she was able to take a somewhat copious meal, her appetite having returned for the first time. During the twelve days I attended this person, the pains were almost nul, and as soon as they reappeared the invalid mastered them with a few centigrammes of codeia; it became, however, necessary to increase the dose by degrees, and from two centigrammes the patient increased the dose to ten and twelve centigrammes.

"To explain how so small a dose produced a calm so complete, I must observe that her weak state rendered her very sensitive to the action of codeia, which, on the other hand, appears to me quite able to be given from the first in a much larger dose than morphia. For example, we have seen the dose of five centigrammes of it in the syrup calming the pains of gastrodynia without leaving the slightest trace of narcotism; and one of our patients takes at present every day fifteen centigrammes of codeia without any bad effect. This invalid, who has long made use of opium and morphia, establishes between those agents and codeia a difference quite to the advantage of the latter, which does not agitate her at all."—*Ed. Med. Journ.*, Sept. 1862.

5. *Use of Malt and Beer in Therapeutics.*—Malt has been long since used in Germany, and particularly in Berlin, as a popular remedy for bronchial catarrh and dyspepsia. It is, however, not more than a year since the German physicians began to prescribe it after Itustendt, who first announced its advantages.

In France, brewers were accustomed to use a tisane of malt for bronchitis and rheumatism, and lately Dr. Frémy has tried this therapeutic agent for many months on patients in the Beaujon Hospital.

Dr. Frémy received direct from a Berlin brewery the medicinal preparations of the beer, the powder of malt and the malt beer, and with these he made his experiments. According to comparative analysis by Chevrier, essential differences exist between such malt and that in use at the Paris breweries. In the first place, the Paris malt shows no trace of diastase, while that of Berlin contains forty-five centigrammes in every thousand grammes.

The latter also contains a considerable quantity of lupuline, of which there is no trace of the former, as well as a portion of cane sugar, which renders it more pleasing to the taste. We must consequently conclude that the method of preparing such malt is different from that followed at Paris. The malt beer is its concentrated essence. It has the taste of certain English beers, such as Scotch ale, is tolerably frothy, and very aromatic. The malt is taken in the form of a hot decoction, and may be mixed with milk. The beer may be taken hot or cold, and at dinner.

Frémy experimented with malt in that hopeless disease, pulmonary tuberculosis. Of sixty-four phthisical patients submitted to the remedy not one was cured. Five of them left the hospital so considerably improved that they believed themselves well, but auscultation proved that the cure was far from complete. In the remainder, the local state continued as before, the phenomena of auscultation remained unaltered; while in both cases the general phenomena of phthisis, viz., perspiration and diarrhoea, were modified for the better. But if, in decided

¹ One centigramme is equal to one-sixth grain.